The Oasis

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PRE-HISTOEIC RUINS.

The Vast Irrigation Works of Past Ages in Arizona.

By R. E. L. Robinson in Yuma Times.

So far few people have given attention to the prehistoric ruins of Arizona. Lieutenant Cushing spent some time in a superficial examination of those in the Salt River Valley in the immediate vicinity of Phœnix, but with that exception little investigation has been made, though this territory is filled, from the head of Tonto basin to the Sonora line, with the unmistakable evidences of the existence of a people far superior in development of civilization to any found at the time of the European discovery of the continent.

One of the monster engineering undertakings which they accomplished has just been discovered in the valley of the Salt river, on the same ground where Mr. Cushing conducted his exploration.

It is a well known fact to those living in the vicinity of Tempe that several sections of land adjoining the town have always been too wet for cultivation. No fruits of any kind could be raised, and even the production of alfalfa could only be secured by a regular system of drainage, similar to that in operation in the low sections of Louisana. At the time Lieutenant Cushing was doing his work, he was asked to examine and explain the cause for the rise of the water to such a height, but he was unable to determine the reason, and it so remained until about two months ago, when Dr. Chandler, of the Consolidated Canal company, decided to cut a ditch across this swampy portion for the purpose of irrigating dry lands beyond.

During the work, at a depth of about three feet, they came upon what appeared to be an ancient wall. Thinking that they had discovered one of the ruins that abound in that section, the course of the wall was followed until it was found to be of greater length than any previously encountered. Parties interested in such investigation took the examination in charge and followed its downward course to the bottom, a distance of about twenty feet. The line of the ancient location was taken up and followed to its extremity, when the building was found to be a submerged dam, standing intact in every place. The work was made of clay, of the height mentioned, and about sixteen feet in thickness at the top. After the material had been put in shape, large fires had been built on the top and sides and the whole thing burned to the hardness of a brick. It was thus impervious to the action of of water and so well withstood time that during the thousands of years that it has stood it has so preserved its entirety that even after washes and flows covered it with sand and silt it still brings the underflow of the Salt river to within one to three feet of the surface, thus causing the excess of water in that locality.

It is evident that the river once ran south of the Tempe Butte, a peak that now rises out of the water's edge on the south side, and it was intended to catch the undeflow with this submerged dam. The dam itself is three and one-half miles in length, extending from the Tempe Butte almost south of the Double Buttes on the southern limit of the valley.

At this point the formation is peculiar, the bed rock rising out of the soil and forming a rocky mesa in the foothills, while along its sides the moist clay was placed in the form of a wall and afterwards burned, when perhaps the earth was thrown around it in order to protect it from the weight of the water, which must have otherwise crushed it.

As an exhibition of engineering skill there is nothing in Arizona today that will equal it, and it is wonderful that these ancient people, whom we say were barbarians, should have such knowledge, by which they took advantage of every freak of nature, and made it assist them in the tilling of the soil. It may be well that modern engineers investigate and profit by this discovery, for it may be the key to the supply of water with which every foot of Arizona's valleys were once irrigated.

Drying Fruit.

Santa Clara Co., California, has an enviable reputation for getting top prices for her fruit. This is because the farmers up there have a live organization which meets often, exchanges ideas and then puts into practical use the information gathered by experience.

This organization, has just issued the following circular anent the proper methods of drying fruit, which will be of intrest here:

Strict observance of the following directions will be found of great advantage to growers. Carelessness in these particulars may throw otherwise excellent fruit into a low grade when it comes to be graded by the exchange.

Drying apricots and peaches—All fruit should be ripe but firm. Unripe fruit is no better dried than fresh, and is at once detected in the pile.

Over ripe fruit will run out over the tray and become what are called "slabs." This fruit is usually good, but not pretty. It sells fairly well by itself, but if left mingled with other fruit lowers the grade of the whole. Slabs should be picked out when the fruit is taken from the tray and be kept by itself. All other black or dark fruit should also be picked from the trays and kept by itself. If this is not done the whole will go as dark fruit. In the same way if you wish to put up some "fancy" fruit, pick from the tray the largest and brightest pieces.

All pitted fruit must be cut with a sharp knife clear around. Careless pitters will cut it nearly around and break the rest; often leaving the two pieces joined by the skiu. Those who do permit this should understand that it will lower the grade of their fruit.

When the fruit is about three-fourths dried it is well to stack the trays and allow the fruit to cure. It dries more slowly and so requires more trays, but makes better and heavier fruit. This should be done whenever the smallest pieces are nearly dry, otherwise the smaller fruit will become "chips." The fruit of two or three trays can be put on one and the trays should be stacked with the end projecting about sixinches over the one below it, back and forth, to allow circulation of air.

It is needless to say that fruit must be kept clean and free from dust if fair prices are expected. Nobody likes to eat dirt, and if he can see it he won't Trays should be thoroughly cleaned before using. If you are a good farmer you washed them before putting them away in the fall. If you did not do it then you can do it now with not much more than double the work. In taking up fruit do not dump the trays, but scoop them up with the hands,or one hand and a wooden scoop, unless the trays are entirely free from dust and dirt, which seldom happens. When taken from the field all fruit should be put in bins in bulk, and not moved until it takes its "sweat." Some put the fruit into sacks to sweat.

All dried fruit should be well cured, but yet pliable, and not chippy. Beyond this no directions for taking up can be given. It is a matter of judgment and ezperience, and those drying for the first time should visit the yard of some experienced drier, and learn this very important part of the business, which, however, is soon acquired.

Sulphuring.—The trade demands bright, clean, well bleached fruit. Growers who do not furnish that will not get first prices. Sulphur boxes should be as tight as possible. Well ripened fruit in tight boxes should bleach well in forty-five minutes, although often left twice that time. It is well when quitting at night to leave the boxes full to bleach until morning. Two cupfull of sulphur is the least that should be used; more will be necessary if the fruit is left in the boxes more than forty-five minutes.

The sulphur should not be lighted with shavings or any material which will produce smoke. The best way is to put a small quantity on a piece of paper about three inches square, place it on the sulphur in the dish and light the paper; this will set the whole on fire.

Keep Moorpark apricots separate from others.

In general, the more pains taken to produce clean, handsome, well cured fruit the more will be the profit in drying. The best fruit not only sells for most but sells first. There are so many careless, slovenly driers that there is tlways a glut of that kind of fruit.

ADVANTAGES OF IRRIGATION.

From the Bakersfield Californian.

The following shows in concise form some, but not all, of the advantages of irrigation:

It softens the consistence of the soil, rendering it more penetrable by the roots of the plants.

It facilitates decomposition of organic matter in the soil, promoting germination.

It modifies the temperature of the soil.

It furnishes more water to the plant and soil.

It supplies moisture at the time most needed by plant and soil.

It supplies moisture to the crops which require excessive moisture.

It encourages early and rapid growth.

It insures a larger crop and more crops.

It insures a better quality to the crop of fruit.

It furnishes a systematic method instead of irregularity.

It permits of greater variety of crops.

It almost wholly eliminates risk from the operation of transplanting.

It economises time and labor.

It adds much to the health, comfort, leisure and life of a farmer.

It economises space and is used to level the soil.

It increases the area of fertile soil.

It increases the quality of the soil by its deposits of sediment.

It increases the commercial value of the soil.

It increases the average rainfall.

It favorably affects the climate.

It gives greater security and permanence to the farm investment.

It elevates agriculture to a higher plane.

It advances the farmer to a higher rank.

ONE COW TO THE ACRE.

Southern Arizona Can Pasture Three Cows To The Acre.

It is only by comparison that Arizonans or those who have lived here long enough to have forgotten their Eastern experience are able to fully realize the blessings they enjoy. A case in point is suggested by an article in a Mississippi valley agricultural newspaper under the caption, "A Cow to Each Acre." "One cow to each acre of land on the farm," says the article in question, "is the mark set by a few, a very few, of our most progressive dairymen. They have succeeded in doing this and are inclined to intimate that those who do not do this are behind the times. Now let us examine this point for a minute. Intensive farming is all right and will grow more and more in favor, but we can go far enough to eat all the profit, even if sales are large. There is a golden mean that brings the most clear ready money from any business. A cow to each acre can only be kept by high manuring of land, soiling and heavy outlay of labor. If land is high in price and labor is plenty, then this intensive form of dairying is all right; but on cheap land it may cost less to maintain a cow on two acres than one. She can do her own harvesting half the year. Pasture on fair soil furnishes cheap food usually, and one may lose by undertaking to double the feed grown on such land when it must be harvested for the stock. Progress means increase of profit."

This is a true picture of the difficulties under which the eastern farmer labors: "A cow to each acre of land can only be kept by high manuring of land, soiling and heavy outlay of labor." Now in Southern Arizona it is nothing to keep two cows to the acre and with proper care as many as three may be kept upon the product of an acre—this, too without high manuring and heavy outlay of labor. An acre of alfalfa, with a good stand and regularly irrigated, will keep two or three cows the year round in this vicinity without any trouble. And it is not more than truth to say that in pretty nearly every branch of agriculture the proportionate advantage enjoyed by the Southern Arizona farmer, over the eastern, is about the same.

Arizona has neither sunstrokes nor bank failures.